

Commonwealth of Kentucky
Division for Air Quality
EXECUTIVE SUMMARY

FINAL

Title V / Synthetic Minor, Construction / Operating

Permit: V-08-004

Western Kentucky University

Bowling Green, KY 42101

July 3, 2008

Lisa Beckham, Reviewer

SOURCE ID: 21-227-00012

AGENCY INTEREST: 11402

ACTIVITY: APE20070001

SOURCE DESCRIPTION:

The Division received a renewal application from Western Kentucky University (WKU) on December 5, 2007 and additional information on February 6, 2008. WKU is a public university that operates several indirect heat exchangers to meet the heat demands of its campus. The facility includes 2 coal-fired units (46.6 and 50.5 MMBtu/hr), three larger natural gas-fired units (72.8 MMBtu/hr, 72.8 MMBtu/hr and 20 MMBtu/hr), and numerous small natural-gas fired units (less than 10 MMBtu/hr). There are also numerous emergency generators throughout the campus and a paint spray booth for miscellaneous maintenance surface coating needs. The paint spray booth was previously listed as an emission unit (EU 09) but after a tour of the facility it was determined that the unit qualifies as an insignificant activity, because it is equipped with a properly designed and operated particulate control device and uses less than five gallons per day, verifiable by appropriate records, of air-dried coating material.

This is the facility's initial Title V/Synthetic Minor permit. WKU has requested to change from a Conditional Major source to a Title V/Synthetic Minor source, by increasing the facility's permitted coal usage to 10,000 tons per year, raising the allowable sulfur content of coal to 1% and increasing the source-wide limit on SO₂ to 225 tons per year. This change will give WKU the ability to meet increased heat demand as its campus expands. Additional changes to the facility include the removal of older small indirect heat exchangers and replacement with newer, more efficient units. The source-wide limit on natural gas use remains unchanged at 750,000,000 scf.

On April 14, 2008, WKU submitted an application for a minor revision to the permit. The changes include: the addition of a biodiesel pilot learning laboratory (0.151 MMBtu/hr diesel-fired water heater), replacing the 25kW emergency generator in Jones Jagger Hall with a new 25kW emergency generator (limited to 500 hours of operation per year), and the addition of a ceramics studio spray booth (PTE less than 1,000 lbs/yr of HAPs and less than 5 tpy of non-hazardous regulated air pollutants). All of these changes classify as insignificant activities and have been incorporated into the permit.

On June 2, 2008 WKU submitted an application for 502(b)10/Off permit changes. WKU will be installing a baghouse to control particulate emissions from the facility's two coal-fired boilers (EU 01 and EU 02). Additionally, WKU is switching out the 2.96 MMBtu/hr natural-gas fired boiler (EU 06, EP 6AK) in the Mass Media and Technology Hall with two new 1.8 MMBtu/hr natural-gas fired boilers (EU 06, EP 6AK and EP 6AL). These changes have been incorporated into the permit.

U.S. EPA REVIEW:

The U.S. EPA was notified of the issuance of the proposed permit on May 19, 2008 via e-mail. The comment period expired 45 days from the date of e-mail. No comments were received during this period. The permit is now being issued final.